

For Your Safety

Be sure to read these notes before use



Safety Notes

Thank you for your purchase of this product. For repair, inspection, or internal testing, contact your FUJIFILM dealer.




- Make sure that you use your **flash** correctly. Read these safety notes and your Owner's Manual carefully before use.
- After reading these safety notes, store them in a safe place.

About the Icons

The icons shown below are used in this document to indicate the severity of the injury or damage that can result if the information indicated by the icon is ignored and the product is used incorrectly as a result.

 WARNING	This icon indicates that death or serious injury can result if the information is ignored.
 CAUTION	This icon indicates that personal injury or material damage can result if the information is ignored.

The icons shown below are used to indicate the nature of the instructions which are to be observed.

	Triangular icons tell you that this information requires attention ("Important").
	Circular icons with a diagonal bar tell you that the action indicated is prohibited ("Prohibited").
	Filled circles with an exclamation mark indicate an action that must be performed ("Required").

WARNING



Unplug from power socket

If a problem arises, turn the flash off, and remove batteries. Continued use of the **flash** when it is emitting smoke, is emitting any unusual odor, or is in any other abnormal state can cause a fire or electric shock. Contact your FUJIFILM dealer.



Avoid exposure to water

Do not allow water or foreign objects to enter the flash. If water or foreign objects get inside the **flash**, turn the **flash** off and remove **batteries**. Continued use of the **flash** can cause a fire or electric shock. Contact your FUJIFILM dealer.



Do not use in the bathroom or shower

Do not use the flash in the bathroom or shower. This can cause a fire or electric shock.



Do not disassemble

Never attempt to change or take apart the flash (never open the case). Failure to observe this precaution can cause fire or electric shock.



Do not touch internal parts

Should the case break open as the result of a fall or other accident, do not touch the exposed parts. Failure to observe this precaution could result in electric shock or in injury from touching the damaged parts. Remove **batteries** immediately, taking care to avoid injury or electric shock, and take the product to the point of purchase for consultation.



Do not place the flash on an unstable surface. This can cause the **flash** to fall or tip over and cause injury.




Never attempt to use your flash while in motion.



Do not touch any metal parts of the flash during a thunderstorm. This can cause an electric shock due to induced current from the lightning discharge.



Do not use batteries except as specified. Load batteries as **polar characters "+" and "-"** indicate.

 **WARNING**

Do not heat, change or take apart the batteries. Do not drop or subject batteries to impacts. Never attempt to charge lithium, Oxryide, or alkaline batteries. Do not short batteries. Do not store batteries with metallic products. Use only the specified charger to recharge NI-MH Batteries. Any of these actions can cause batteries to burst or leak and cause fire or injury as a result.



Use only batteries specified for use with this flash. The use of other power sources can cause a fire or product malfunction.




Do not use your flash nearby cosmetic products or drug containers. The spill or the ingress into flash can cause fire, electric shock, or injury.




Do not direct the flash at the operator of a motor vehicle. This can cause a motor vehicle accident.



Do not use the flash in the presence of flammable or volatile gas.




If batteries leak and fluid gets in contact with your eyes, skin or clothing, flush the affected area with clean water and seek medical attention or call an emergency number right away.



In dispose or long-term storage of batteries, cover battery terminals by insulation tape. Contact with other metallic objects or batteries could cause batteries to ignite or burst.



Do not use this flash in locations affected by oil fumes, steam, humidity or dust. This can cause a fire or electric shock.




Do not leave this flash in places subject to extremely high temperatures. Do not leave the flash in locations such as a sealed vehicle or in direct sunlight. This can cause a fire.




Keep out of the reach of small children. This product could cause injury in the hands of a child.

 **CAUTION**


Do not place heavy objects on the flash. This can cause the heavy object to tip over or fall and cause injury.



Do not cover or wrap the flash or the charger in a cloth or blanket. This can cause heat to build up and distort the casing or cause a fire.

 **CAUTION**

When you are cleaning the flash or you do not plan to use the flash for an extended period, remove batteries. Failure to do so can cause batteries to leak fluid, a fire, or electric shock.



Using a flash too close to a person's eyes may temporarily affect the eyesight or can cause a visual impairment. Take particular care when photographing infants and young children.



Request regular internal testing and cleaning for your flash. Build-up of dust in your flash can cause a fire or electric shock. Contact your FUJIFILM dealer to request internal cleaning every two years. Please note that this service is not free of charge.



Do not use alcohol, thinner, benzene, or other volatile chemicals to clean your flash. This can cause fire or electric shock.

Batteries

Note: Check the type of batteries used in your flash and read the appropriate sections.

The following describes the proper use of batteries and how to prolong their life. Incorrect use can shorten battery life or cause leakage, overheating, fire, or explosion.

■ Cautions: Handling the Batteries

- Do not expose to flame, or heat.
- Do not transport or store with metal objects such as necklaces or hairpins.
- Do not use batteries that are leaking, deformed, discolored, or with other abnormal states.
- Do not mix old and new batteries, batteries with different charge levels, or batteries of different types.
- If the flash will not be used for an extended period, remove the batteries. Note that various settings of the flash will be reset.
- The batteries may be warm to the touch immediately after use. Turn the flash off and allow the batteries to cool before handling.
- Battery capacity tends to decrease at low temperatures below 10°C (50°F). Keep spare batteries in a pocket or other warm place and exchange as necessary. Cold batteries may recover some of their charge when warmed.
- Fingerprints and other stains on the battery terminals can affect a number of flash firing. Thoroughly clean the terminals with a soft, dry cloth before inserting batteries in the flash.

■ Rechargeable AA Ni-MH Batteries

The capacity of Ni-MH batteries may be temporarily reduced when new, after long periods of disuse, or if they are repeatedly recharged before being fully discharged. This is normal and does not indicate a malfunction.

The flash draws a small amount of current even when off. Ni-MH batteries that have been left in the flash for an extended period may be drawn down to the point that they no longer hold a charge. Batteries that no longer hold a charge even after repeatedly being discharged and recharged have reached the end of their service life and must be replaced.

Ni-MH batteries can be recharged in a battery charger (sold separately). Batteries may become warm to the touch after charging. Refer to the instructions provided with the charger for more information. Use the charger with compatible batteries only.

Ni-MH batteries gradually lose their charge when not in use.

■ Disposal

Dispose of used batteries in accord with local regulations.

Caring for the Flash

To ensure continued enjoyment of the product, observe the following precautions.

Storage and Use

If the flash will not be used for an extended period, remove batteries. Do not store or use the flash in locations that are:

- exposed to rain, steam, or smoke
- very humid or extremely dusty
- exposed to direct sunlight or very high temperatures, such as in a closed vehicle on a sunny day
- extremely cold
- subject to strong vibration
- exposed to strong magnetic fields, such as near a broadcasting antenna, power line, radar emitter, motor, transformer, or magnet
- in contact with volatile chemicals such as pesticides
- next to rubber or vinyl products

■ Water and Sand

Exposure to water and sand can also damage the flash and its internal circuitry and mechanisms. When using the flash at the beach or seaside, avoid exposing the flash to water or sand. Do not place the flash on a wet surface.

■ Condensation

Sudden increases in temperature, such as occur when entering a heated building on a cold day, can cause condensation inside the flash. If this occurs, turn the flash off and wait for droplets to evaporate.

Cleaning

Use a blower to remove dust from the light-emitting section or other parts of the flash, then gently wipe with a soft, dry cloth. Any remaining stains can be removed by wiping gently with a piece of FUJIFILM lens-cleaning paper to which a small amount of lens-cleaning fluid has been applied. Care should be taken to avoid scratching any parts of flash, particularly the light-emitting section. The body of flash can be cleaned with a soft, dry cloth.

Welcome to the worldwide family of FUJIFILM owners.

Note that it cannot be used with other cameras. Please read this owner's manual carefully so that you can use this unit correctly.

Features and Functions of the FUJIFILM EF-20

- ★ The position of the subject or the use of bounce lighting may make the brightness level insufficient or excessive. This unit has an EV ADJUST button that allows you to easily increase or decrease the brightness as required.
- ★ Bounce lighting is possible at an upward angle of up to 90 degrees.
- ★ Less than half the size of our previous model and weighing about 85 grams less, the EF-20 boasts a compact, lightweight design that provides a high degree of freedom in camera work. In addition, when the unit is not installed on the camera, the shoe section can be rotated inside the flash body so that the unit can be carried even in a shirt pocket.

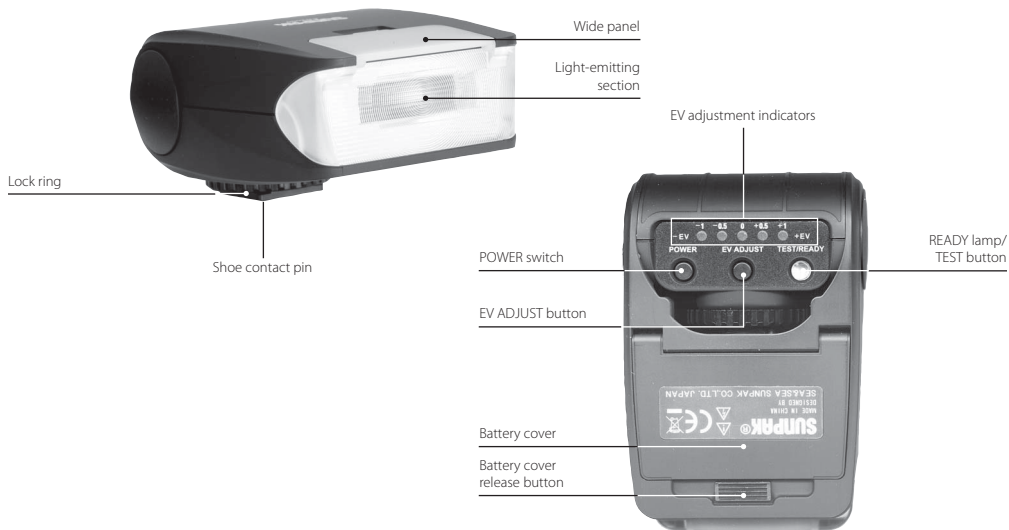
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■ Handling Precaution

- When the flash is installed on the camera, do not hold the combination by the flash; otherwise the camera could slip off the shoe.
- For details on functions interlocked with the camera, consult your nearest FUJIFILM service center or FUJIFILM website (http://www.fujifilm.com/products/digital_cameras/index.html).

Description of Parts



Installing the Batteries

- ① Slide the battery cover release button downward to open the battery compartment.
- ② Insert two new "AA"-size alkaline or NiMH batteries into the battery compartment, ensuring that the polarity indications "+" and "-" are aligned correctly. The unit will not operate properly if the batteries are installed incorrectly.
- ③ Close the battery cover until it clicks. Press the POWER switch to the "ON" position. When the unit is switched on, it will start charging with a slight humming sound and the READY lamp starts to blink. Now the unit is ready for shooting. (The READY lamp stops blinking and remains illuminated when the unit is fully charged.)
- ④ To switch the power off, press the POWER switch again. The READY lamp will go off and the unit will not flash.

* Be careful not to short-circuit the shoe terminals while the unit is switched on without being mounted on the camera. Otherwise, unexpected firing or a failure may result.

* It is recommended to use the NiMH (Nickel Metal Hydride) batteries in order to decrease the charging time and increase the firing count.



About the READY Lamp

The firing power may be insufficient immediately after lighting of the READY lamp. To obtain optimum brightness for shooting, wait a few seconds before releasing the shutter after the READY lamp comes on.

* If the READY lamp blinks for more than 30 seconds, it is likely that the batteries are exhausted and need replacement (provided that the unit is not mounted on the camera and the READY lamp blinks for more than 30 seconds after previous firing).

Mounting the Unit on the Camera

Be sure to set the POWER switch to OFF before mounting or dismounting the unit. If the POWER switch is left ON, unexpected flashing or a malfunction of the camera may result.

- ① Firmly slide the flash onto the camera's shoe and turn the lock ring to the left to fix the flash.
- ② Once the flash has been mounted on the shoe, the shutter speed will be automatically set when both the flash and camera are turned on.

Now the camera is ready for flashing.

Test Firing

After the READY lamp lights steadily, press the TEST/ READY button to activate test firing. This allows you to confirm that the flash fires.



TTL Effective Range

When the subject is within the TTL effective range, the selected EV adjustment indicator lights for about 3 seconds after firing. If the indicator does not come on, approach the subject or open up the aperture (decrease the f-number) and retry shooting. Changing the ISO speed to a higher sensitivity (higher value) can also be helpful.



- ★ The effective TTL range is shorter than usual immediately after the READY lamp comes on.

If the Picture is Too Bright or Too Dark

The EF-20 has an EV ADJUST button for fine adjustment of the brightness level.

Use this button to adjust the brightness to obtain a satisfactory effect in the following cases.

- ★ When satisfactory brightness cannot be obtained during daylight sync flashing (in outdoor shooting under sunlight, the strobe light can be used as an auxiliary light source to minimize shadows on the subject formed by the sun) or shooting against light.
- ★ When you want to take several pictures by varying the brightness.
- ★ When the brightness is insufficient in bounce lighting.



First, shoot a picture in standard auto mode (when the EV adjustment indicator is lit) and check it on the monitor. If you find that the brightness is too high or low, press the EV ADJUST button to fine adjust the brightness and take another picture. If the picture is darker than expected, press the EV ADJUST button once to increase the EV by one step so that the red "+0.5" EV adjustment indicator lights up. In this condition, the unit emits light by increasing the brightness by +0.5 EV. After shooting, check the picture on the monitor again. If the brightness is still insufficient, press the button again so that the "+1" EV adjustment indicator lights up and retry shooting.

If the picture is too bright, press the EV ADJUST button to change the lighting EV

adjustment indicator in the "-" direction until the desired brightness is obtained. The adjustment with the ED ADJUST button is invalid when no EV adjustment indicator is lit (i.e. when the TTL auto brightness adjustment is not activated). Make sure that one of the EV adjustment indicators is lit before pressing the EV ADJUST button.

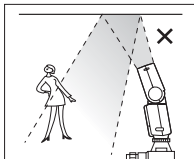
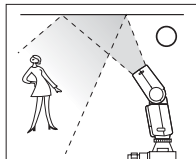
To exit from the EV adjustment mode, press the EV ADJUST button again. Alternatively, the EV adjustment mode can also be exited by pressing the POWER switch to OFF then ON again.

Bounce Lighting

The light-emitting section of the EF-20 can be pointed upward for bounce lighting.

If the flash is fired by pointing the light-emitting section directly at the subject, the picture may look unnatural due to a strong shadow produced behind the subject under certain conditions. In such a case, pointing the light-emitting section to the ceiling may make it possible to take beautiful pictures with softer, more natural shadows.

The brightness of bounce lighting may sometimes be insufficient depending on the distance of the ceiling (wall) surface where the light is reflected. In this case, press the EV ADJUST button to adjust the EV value in the positive direction, position the AF frame in the viewfinder on the subject and half-press the shutter release button. Confirm that the "4" mark is visible in the viewfinder and that the shutter speed and f-stop are correct before fully pressing the shutter release button.



* To prevent damage or malfunction, do not bend the light-emitting section above 90 degrees.

* Bounce lighting is possible simply by turning the light-emitting section up toward the ceiling. All other operations are identical to shooting with direct lighting. However, note that the brightness may drop to about 25%, though this is variable depending on the color and material of the reflecting surface. It is therefore recommended to open up the aperture (to decrease the f-number as much as possible). The surface used for bounce lighting should be as white as possible and its reflectivity as high as possible. Note that, in color photography, if the reflecting surface has a color, the colored reflection will stain the subject in that color.



Using the Wide Panel

The EF-20 has a "wide panel" attached to it. The flash usually covers an area with a focal length up to 32 mm, and the wide panel is for use when the lens in use is a wide-angle lens with a shorter focal length. Specifically, the wide panel makes the flash compatible with a focal length up to 24 mm.

Operation is easy. All that is needed is flip up the white panel on the lightemitting section with a fingertip and place it on the lens of the light-emitting section.

Note that the use of the guide panel decreases the guide number to 14.



Important Note on Successive Firing

To prevent degradation due to overheating that may result from successive firing, it is recommended to pause firing for more than 10 minutes after successive firing.

Specifications and Performances

Guide number	20 ISO100-m (14)
Valid focal length of lens (Figures inside () are the values when the wide panel is used)	35mm film size camera or equivalent: 32 mm (24 mm) or more APS size digital SLR camera: 23 mm (17 mm) or more
Firing time	Approx. 1/800 sec. (Full ring)
Color temperature	5600K
TTL effective range	Shooting range = $\frac{\text{Guide number}}{\text{number}} \times \sqrt{\frac{\text{Film speed}}{\text{ISO 100}}} \div \text{f-number}$ Set
Bouncing mechanism	0, 45, 60, 75 and 90 degrees in the upward direction
Operating power	*AA"-size alkaline/NiMH/Oxyride batteries x 2
Operating temperature	0° to 40°C
Dimensions	During operation: 43(H) x 61(W) x 88(D) mm When the shoe is accommodated: 35(H) x 61(W) x 88(H) mm
Weight	Approx. 100 grams (excl. batteries)

● The design and specifications of this product are subject to change without prior notice.

Initial Number of Flashes and Recycling Time

	Number of flashes (Full power)	Recycling time (Full power)
*AA"-size alkaline batteries x 2	Approx. 200 times	Approx. 5 sec.
*AA"-size NiMH batteries x 2	Approx. 280 times	Approx. 4 sec.

- Number of flashes: Measured under normal temperature, with new batteries that are within 3 months from their date of production, flashed every 30 seconds successively and recycled to the point at which the READY lamp takes 30 seconds to come on after the last flash.
- Recycling time: The minimum time taken to activate the READY lamp after firing under the above conditions.